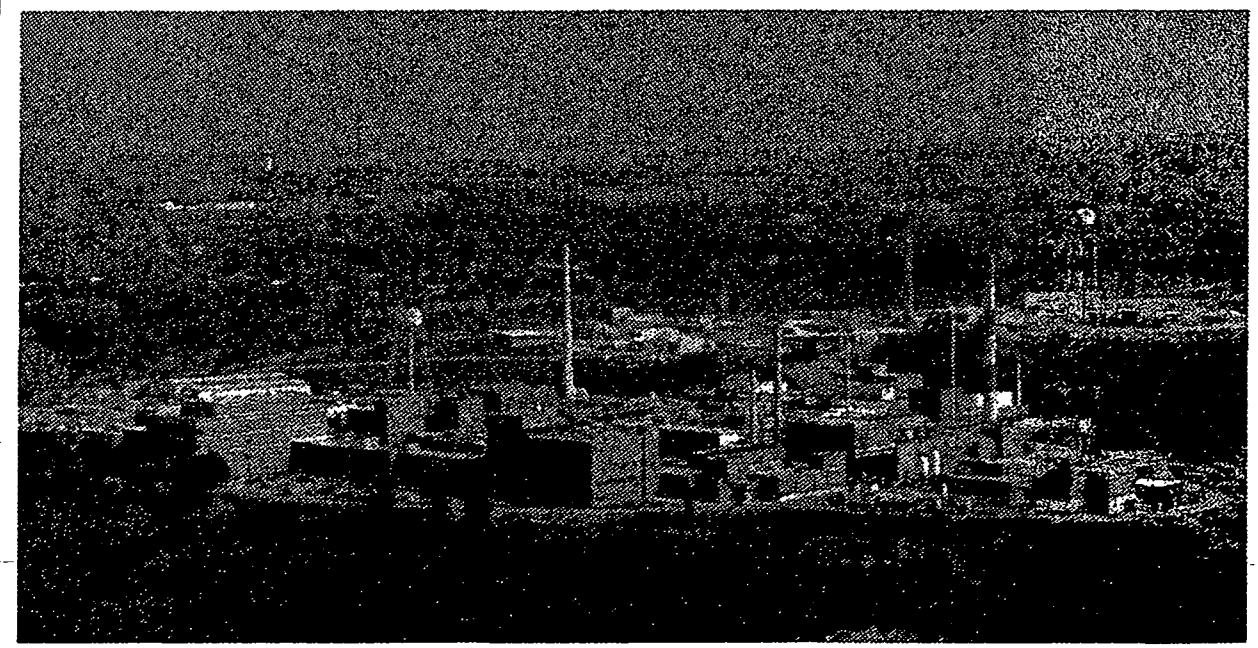
EG&G MOUND-30-03-04-02--9703180023

MOUND

Environmental
Restoration
Program

OhioEPA

MOUND PLANT
Potential Release Site Package
PRS # 315/316/319



MOUND

Environmental Restoration Program

MOUND PLANT POTENTIAL RELEASE SITE PACKAGE

Notice of Public Review Period

The following potential release site (PRS) packages will be available for public review in the CERCLA Public Reading Room, 305 E. Central Ave., Miamisburg, Ohio beginning January 30, 1997. Public comment will be accepted on these packages from January 30, 1997, through March 6, 1997.

PRS 244: Soil Contamination - B Building
PRS 273: Soil Contamination - Area 12 (SM/PP Hillside)
PRS 309: Soil Contamination - Radiological Survey Site Location S0307
PRS 315/316/319: Waste Transportation Vehicles, Trash Dumpsters, Epoxy Resin Waste Storage Site - Building 49
PRS 332: Waste Oil Tank - Building G (used engine oil)
PRS 338: Septic Tank - Building 29
PRS 400: Soil Contamination
PRS 401: Soil Contamination

Questions can be referred to Mound's Community Relations at (937) 865-4140.

REV	DESCRIPTION	DATE
PUBLIC RELEASE 0	Available for comment.	Dec. 17, 1996
FINAL 1	Comment period expired. No comments. Recommendation page annotated.	Mar. 11, 1997

PRS 315/316/319

PRS HISTORY:

In 1988, an Environmental Protection Agency (EPA) - Visual Site Inspection (VSI) was performed at Mound.[2] The VSI was an audit of waste management operations. Numerous waste treatment and storage locations have been identified as potential release sites (PRS). The purpose of this PRS data package is to communicate the findings from the VSI report for three PRSs, 315, 316, and 319. There was no evidence of environmental releases from these PRSs which required "corrective actions", the EPA's enforcement regulations for cleaning up contamination from a spill or leak of hazardous waste. In 1990, a subsequent review of the information in the VSI report by Mound's Environmental Restoration Program (DOE, U.S. EPA, and Ohio EPA) concurred with the "no further action" conclusions for these PRSs.[3]

Trash dumpsters, PRS 315, are the waste containers used to collect general trash from Mound buildings. The dumpsters are still in service at Mound.

Mound's waste management staff collects chemical wastes from process buildings using trucks, carts, and fork lifts. These vehicles, PRS 316, are still in service and are used to transfer the chemical wastes to temporary storage buildings as needed to prepare the waste for off-site treatment and disposal.

PRS 319 refers to a specific dumpster located at Building 49. Epoxy resin wastes (plastic & adhesive compounds) were originally placed in this dumpster. The VSI inspectors recommended that this waste be placed in separate containers for disposal as a chemical waste. The potential for an environmental release was not the reason PRS 319 was identified during the VSI. The disposal of epoxy resin wastes was a waste management issue involving segregation and proper container usage. The manufacturing operations generating the epoxy resin wastes have ceased.

CONTAMINATION:

No analytical testing has been performed to specifically assess the environmental impact from the trash dumpsters or the waste transfer vehicles.

The only data attached to this report is from the Radiological Site Survey.[4] Soil samples from the Building 49 area were analyzed for radioactivity. The detected levels of radioactivity were below Mound's contamination limits and are not related to a release from the Building 49 dumpster, PRS 319. The ALARA limit for Plutonium-238 is 25 pCi/g. The regulatory limit, 40 Code of Federal Regulations 192.41, for thorium contamination is 5 pCi/g (surface).

READING ROOM REFERENCES:

1) Operable Unit 9 Site Scoping Report: Volume 12 - Site Summary Report, December 1994. (pages 6-7)
2) Preliminary Review/Visual Site Inspection for RCRA Facility Assessment of Mound Plant, July 1988. (pages 8-15)
3) Remedial Investigation/Feasibility Study, Operable Unit 9, Site-Wide Work Plan, April 1992. (pages 16-23)
4) OU9, Site Scoping Report Volume 3 - Radiological Site Survey, June 1993. (pages 24-27)

PREPARED BY:

David Gloekler, Member of EG&G Technical Staff

MOUND PLANT
PRS 315/316/319
WASTE TRANSPORTATION VEHICLES, TRASH DUMPSTERS, AND EPOXY RESIN WASTE STORAGE SITE - BUILDING 49

RECOMMENDATION:

Potential Release Sites (PRSs) 315, 316 and 319 were identified in the 1988 RCRA Facility Assessment (RFA) during the Visual Site Inspection (VSI) at Mound. They were identified due to potential releases from the trash dumpsters or the waste transport vehicles. There was no evidence of a spill or release from the trash dumpsters or the waste transport vehicles. A subsequent review of the RFA/VSI information was conducted in 1990 by the Environmental Restoration Program and confirmed that no environmental releases occurred from these PRSs, therefore, NO FURTHER ASSESSMENT is recommended.

CONCURRENCE:

DOE/MB: Arthur W Kleinrath 11/27/96
Arthur W. Kleinrath, Remedial Project Manager (date)

USEPA: Timothy J. Fisher 12/3/96
Timothy J. Fischer, Remedial Project Manager (date)

OEPA: Brian K. Nickel 12/12/96
Brian K. Nickel, Project Manager (date)

SUMMARY OF COMMENTS AND RESPONSES:

Comment period from 1/30/97 to 3/6/97

☒ No comments were received during the comment period.

☐ Comment responses can be found on page _____ of this package.

REFERENCE MATERIAL
PRS 315/316/319

Document Control No. _____

Environmental Restoration Program

OPERABLE UNIT 9 SITE SCOPING REPORT: VOLUME 12 – SITE SUMMARY REPORT

MOUND PLANT
MIAMISBURG, OHIO

December 1994

Final

U.S. Department of Energy
Ohio Field Office

EG&G Mound Applied Technologies

Description of History and Nature of Waste Handling						Hazardous Conditions and Incidents			Environmental Data		
No.	Site Name	Location	Status	Potential Hazardous Substances	Ref	Releases	Media	Ref	Analytes[a]	Results	Ref
311	Site Survey Project Potential Hot Spot Location S0706	I-6	Grounds	Plutonium-238	6	(Cont.)			13	Table B.9 (Appendix E in Ref. 6)	6
312	Site Survey Project Potential Hot Spot Location S0971	J-9	Grounds	Thorium	6				14	Table B.9 (Appendix E in Ref. 6)	6
313	Site Survey Project Potential Hot Spot Location S0982	I-8	Grounds	Thorium	6						
314	Farm Trash Area	M-5	Historical	Waste oil	5, 18	Suspected, not confirmed			3, 4, 5, 6 14	Tables B.6, B.7, and B.8 Table B.9 RSS[c] Location S0237 (Appendix E in Ref. 6)	7 6
315	Waste Transport Vehicles	SITE-WIDE	In service	Explosives Programs wastes Mixed wastes Laboratory chemicals Low activity wastewater from SM/PP Complex to WD Building	4, 5, 18	None Suspected			No Data		
316	Trash Dumpsters	SITE-WIDE	In service	Solid wastes	4, 5, 18	None Suspected			No Data		
317	Ventilation Hoods	SITE-WIDE	In service	Paint fumes, Acidic and caustic gases Asbestos, Acetone, Trichloroethylene, Benzene, Chloroform, Toluene	4, 5, 18	None Suspected			No Data		
318	Transformers	SITE-WIDE	In service	Polychlorinated biphenyls	4	All PCB oils replaced			No Data		
319	Epoxy Resin Disposal	G-7 H-7	In service	Epoxy resins	5, 18	None Suspected			No Data	Table B.9	6
	Dayton Unit I	Dayton	Historical	Radioisotopes (including plutonium-239) Spent acids (including hydrochloric acid)	1, 4	None Suspected			No Data		

1 - Soil Gas Survey - Freon 11, Freon 113, Trans-1,2-Dichloroethylene, Cis-1,2-Dichloroethylene, 1,1,1-Trichloroethane, Perchloroethylene, Trichloroethylene, Toluene
2 - Gamma Spectroscopy - Thorium-228, -230, Cobalt-60, Cesium-137, Radium-224, -226, -228, Americium-241, Actinium-227, Bismuth-207, Bismuth-210m, Potassium-40
3 - Target Analyte List
4 - Target Compound List (VOC)
5 - Target Compound List (SVOC)
6 - Target Compound List (Pesticides/Polychlorinated Biphenyl)
7 - Dioxins/Furans
8 - Extractable Petroleum Hydrocarbons (EPH)/Total Petroleum Hydrocarbons (TPH)
9 - Lithium
10 - Nitrate/Nitrite
11 - Chloride
12 - Explosives
13 - Plutonium-238
14 - Plutonium-238, Thorium-232
15 - Cobalt-60, Cesium-137, Radium-226, Americium-241
16 - Tritium

Reference List

1. DOE 1986 "Phase I Installation Assessment Mound (DRAFT)."
2. DOE 1992a "Remedial Investigation/Feasibility Study, Operable Unit 9, Site-Wide Work Plan (Final)."
3. DOE 1992c "Mound Plant Underground Storage Tank Program Plan & Regulatory Status Review (Final)."
4. DOE 1993a "Site Scoping Report: Volume 7 - Waste Management (Final)."
5. EPA 1988a "Preliminary Review/Visual Site Inspection for RCRA Facility Assessment of Mound Plant."
6. DOE 1993d "Operable Unit 9, Site Scoping Report: Volume 3 - Radiological Site Survey (Final)."
7. DOE 1993c "Operable Unit 3, Miscellaneous Sites Limited Field Investigation Report."
8. DOE 1992d "Reconnaissance Sampling Report Decontamination & Decommissioning Areas, OU6, (Final)."
9. Fentiman 1990 "Characterization of Mound's Hazardous, Radioactive and Mixed Wastes."
10. DOE 1992f "Operable Unit 9, Site Scoping Report: Volume 11 - Spills and Response Actions (Final)."
11. Styron and Meyer 1981 "Potable Water Standards Project: Final Report."
12. DOE 1993b "Reconnaissance Sampling Report - Soil Gas Survey & Geophysical Investigations, Mound Plant Main Hill and SM/PP Hill (Final)."
13. DOE 1993d "Operable Unit 9, Site Scoping Report: Volume 3 - Radiological Site Survey (Final)."
14. DOE 1991b "Main Hill Seeps, Operable Unit 2, On-Scene Coordinator Report for CERCLA Section 104 Remedial Action, West Powerhouse PCB Site."
15. Halford 1990 "Results of South Pond Sampling."
16. DOE 1993e "Operable Unit 4, Special Canal Sampling Report, Miami Erie Canal."
17. DOE 1990 "Preliminary Results of Reconnaissance Magnetic Survey of Mound Plant Areas 2, 6, 7, and C."
18. DOE 1992a "Remedial Investigation/Feasibility Study, Operable Unit 9, Site-Wide Work Plan (Final)."
19. Rogers 1975 "Mound Laboratory Environmental Plutonium Study, 1974."
20. DOE 1992h "Ground Water and Seep Water Quality Data Report Through First Quarter, FY92."
21. Dames and Moore 1976 a, b "Potable Water Standards Project Mound Laboratory" and "Evaluation of the Buried Valley Aquifer Adjacent to Mound Laboratory."
22. DOE 1992i "Closure Report, Building 34 - Aviation Fuel Storage Tank."
23. DOE 1992j "Closure Report, Building 51 - Waste Storage Tank."
24. DOE 1994 "Operable Unit 1, Remedial Investigation Report."
25. EG&G 1994 "Active Underground Storage Tank Plan."

PRELIMINARY REVIEW/VISUAL SITE INSPECTION

U.S. DOE MOUND
Miamisburg, Ohio

EPA I.D. OH6899008984

PREPARED FOR

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION V
230 SOUTH DEARBORN STREET
CHICAGO, IL 60604

PREPARED BY

A. T. KEARNEY, INC.
225 REINEKERS LANE
ALEXANDRIA, VA 22313

AND

DPRA, INC.
245 EAST 6TH STREET
SUITE 813
ST. PAUL, MN 55101

EPA CONTRACT NUMBER 68-01-7374

WORK ASSIGNMENT NUMBER R25-01-21

JULY 1988

Unit No.: MI-10

Unit Name: Trash Dumpsters

Unit Description: Trash Dumpsters are rectangular metal containers located throughout the facility in many locations for collection of general trash. Many of the dumpsters are approximately seven feet long, four feet wide, and four feet high with an approximate capacity of two to five cubic yards. Trash is transported off-site for disposal (Ref. 84).

Date of Start-up: Unknown.

Date of Closure: The dumpsters are still in service.

Wastes Managed: The dumpsters are used for collection of general trash generated from on-site activities. The file information indicates this waste collection system is well organized but small quantities of laboratory chemicals find their way into the trash (Ref. 81, p. 4-14).

Release Controls: The Trash Dumpsters are metal and wastes are covered with plastic or a metal lid. Many of the dumpsters are located on asphalt or concrete pads. Runoff from these areas is discharged to the storm drains.

History of Releases: There were no releases from the Trash Dumpsters noted in the file information. During the VSI, stains were observed on the asphalt pad beneath the dumpster near Building A.

Conclusions:

Soil/Groundwater: The potential for release to soil and groundwater is low since wastes are contained in the metal dumpster. The soil is further protected from releases by the asphalt or concrete pad.

Surface Water: There is a moderate potential for release to surface water. Runoff from the stained areas adjacent to the dumpster is discharged into the storm sewer to the Plant Drainage Ditch.

Air:	The potential for release to the air is low due to the relatively non-volatile nature of the wastes.
Subsurface Gas:	There is no potential for generation of subsurface gas from these units. Wastes are contained completely above-ground in the metal dumpsters.

Unit No.: MI-4

Unit Name: Waste Transport Vehicles

Unit Description: The Waste Transport Vehicles used at the site include hand carts, fork lifts, a modified step van, box truck, cargo bed truck, stake bed truck and a tank truck. The hand carts are used indoors to transport drummed wastes. The step van and box van transport explosive wastes in containers from various on-site locations to the Open Burn Area. Drummed hazardous wastes are transported by a stake bed truck and a cargo bed truck to the Hazardous Waste Storage Area (SWMU CS-7). Wastewater from the SM/PP Facility, formerly conveyed to the WD Building by the Waste Disposal Pipeline (SWMU MI-2), is transported by tanker truck (Ref. 66, p. 1-22).

Date of Start-up: Waste collection vehicles have been used since the 1950s.

Date of Closure: The vehicles are still in operation.

Wastes Managed: The hand carts and fork lifts are used for indoor transport drums of hazardous wastes generated at the site. Wastes transported in the step and box vans include primarily containerized pyrotechnic and explosive wastes (D003). Cargo and stake bed trucks move drummed hazardous wastes from points of generation to the Hazardous Waste Storage Area. Tank trucks transport a plutonium and acid wastewater slurry from the SM/PP Facility to the WD Building. An analysis of the slurry for hazardous constituents is not available, however detectable concentrations of toxic metals are known to be in the sludge produced from the treatment of the slurry (Ref. 85).

Release Controls: Hand carts and fork lifts are used indoors for manually transporting single drums over short distances. Drums are typically loaded onto the Waste Transport Vehicles with the hand carts. No special release controls were observed. The step and box vans are completely enclosed to prevent exposure of pyrotechnic and explosive waste containers to sunlight and precipitation. Both vehicles have explosive placards on the exterior with no other special markings or beacons. Drums are restrained on the bed of the

stake bed truck by removable sidewalls. No such controls are available on the cargo truck (Ref. 84). These trucks have no special markings or beacons.

Waste transport routes are designated for each Waste Transport Vehicle. Intersections along these routes are marked with warning signs with flashing beacons, and traffic signal lights (Ref. 66). There were no release controls to prevent spilled liquid wastes from running off the roadways via storm drains to the Plant Drainage Ditch (Ref. 96). Many of the roads used for transport of these wastes are constructed of gravel and deteriorating asphalt or concrete (Ref. 66).

History of Releases: There were no releases noted from the Waste Transport Vehicles in the file information or observed during the VSI.

Conclusions:

Soil/Groundwater: The potential for release to soil and groundwater during routine transport is low; however, in the event of a roadway accident and a release from a truck, particularly liquid wastes, the potential for release to soil and groundwater adjacent to or beneath the roadways is high. This is because there are no roadway release controls and many of the roads are composed of gravel or deteriorating concrete or asphalt.

Surface Water: The potential for release to surface water during routine waste transport activities is low since all wastes are containerized; however, in the event of a roadway accident, there is a high potential for releases to surface water since runoff from the vehicle roadways is directed to the Plant Drainage Ditch.

Air: The potential for releases to the air is low since all wastes are containerized while

being transported in the Waste Transport Vehicles.

Subsurface Gas: The potential for generation of subsurface gas is moderate in the event of a release of volatile wastes. There are no release controls on the roadways and many roads are constructed of gravel or deteriorating asphalt or concrete.

OTHER AREAS OF CONCERN

No.	Name	Waste Managed/ Contaminant	Location	Volume/Area	Concern	Reference
F	SM/PP Hill-9	Radioactive waste	SW Building, Room 219	1000 ft^2	Radioactive cell not removed or decontaminated	81
G	Hillside Hole	Contaminated groundwater seep	West of Building I	2 gal/min	Groundwater seepage contaminated with tritium	84
H	Epoxy Resin Disposal	General trash	Building 49	2-5 yd^3 dumpster	Epoxy resin co-disposed in trash	84
I	North Canal	Surface runoff	West of facility off-site	Approximately 2000 feet long	Plutonium in sediments	10, 12, 72 73, 84
J	Miami-Erie Canal (South Canal)	Plant runoff	Southwest of facility, off-site	Approximately 3000 feet long	Plutonium in sediments, receives potential contaminated plant runoff	10, 12, 72, 73, 84
K	North Pond	Well water used for solar energy pond	Northwest of facility, off-site	Approximately 200 feet on each side; unknown volume	Plutonium in impounded water	7, 10, 72, 84

Unit No.	Unit Name	Suggested Further Actions
H	Epoxy Resin Disposal	Attempts should be made to segregate the waste epoxy resin from general trash at Building 49.
I	North Canal	Collect sediment samples to determine whether hazardous constituents have been discharged off-site in plant stormwater runoff.
J	Miami-Erie Canal (South Canal)	Collect sediment samples to determine whether hazardous constituents have been discharged off-site in plant stormwater runoff.
K	North Pond	Collect surface water samples from the pond to determine whether hazardous constituents have been discharged off-site in plant runoff.
L	South Pond	Collect surface water samples from the pond to determine whether hazardous constituents have been discharged off-site in plant runoff.
M	Contaminated Soil Box Storage Area	No further action is suggested at this time.
N	Paint Shop Spills	Identify the spill location and conduct soil sampling from the affected areas to determine whether releases of hazardous constituents have occurred.
O	Powerhouse Spills	Identify the locations of leakage and conduct soil sampling from the affected areas to determine whether releases of hazardous constituents have occurred.

Document Control No. _____

Environmental Restoration Program

REMEDIAL INVESTIGATION/FEASIBILITY STUDY OPERABLE UNIT 9, SITE-WIDE WORK PLAN

MOUND PLANT
MIAMISBURG, OHIO

May 1992

FINAL

Department of Energy
Albuquerque Field Office

Environmental Restoration Program
Technical Support Office
Los Alamos National Laboratory

D&D Program will complete a verification of residual radioactivity in soils at a given s... The ER Program will review the verification plans versus suitability for a CERCLA RI/FS, including adding sampling and analysis for hazardous chemicals, and then submit the plan to the EPA and the OEPA for regulatory review. The radiological verification and chemical characterization will be done simultaneously and constitute the remedial investigation. The concurrent sampling will take advantage of easy accessibility to the potentially contaminated surface of the excavation before it is backfilled with clean material.

- Verification Report, RI/FS: Using the combined data from the radiological verification and the hazardous chemical characterization, a verification report will be prepared for each contaminated soil area. The D&D Program normally prepares a verification report to certify a given soil area as clean. This is done for its internal programmatic closeout of an area.

The RI/FS for the D&D Program Sites will be assembled sequentially because of the sequencing of D&D soil excavation for different release sites over several years. Although it is anticipated that the D&D soil removal will satisfy CERCLA cleanup requirements as well, it is possible that a CERCLA remedial action could be required after the D&D cleanup is complete, and that a decision would be made during the RI/FS (verification). A baseline risk assessment based on CERCLA protocols has been scheduled for FY 1991 to provide the basis for a comparison of current D&D Program cleanup levels to CERCLA requirements.

It is anticipated that all radioactively contaminated soils at the Mound Plant, including the currently defined Operable Unit 5, Radioactively Contaminated Soils, and Operable Unit 6, D&D Program Sites, will eventually be consolidated into a single operable unit for the purposes of completing the remedial action and a CERCLA/NEPA ROD. If the D&D Program is able to clean up sufficiently to meet CERCLA requirements and it is verified that no significant levels of radionuclides or hazardous chemicals remain after D&D, no CERCLA remedial action will be required, and a "no action" ROD will be completed.

The conceptual site model is shown in Figure 3.14. The release sites included in this operable unit contain radioactively contaminated surface or near-surface soil scheduled for cleanup. However, the air, surface and ground water pathways will be investigated by other operable units. The site-wide operable unit will initiate investigations for all of these media.

3.7. LIMITED ACTION SITES

The Limited Action Sites include 35 sites brought forth from the RCRA Facilities Assessment (RFA 1988) as requiring "No Further Action" and are believed to have no contamination associated with them (Figure 3.15). These sites (Table III.5) were visually inspected by a joint DOE, EPA, and OEPA committee in August 1990. As of this writing, no further action will be taken on these sites, and no further documentation is planned. Appendix A contains individual descriptions of these sites.

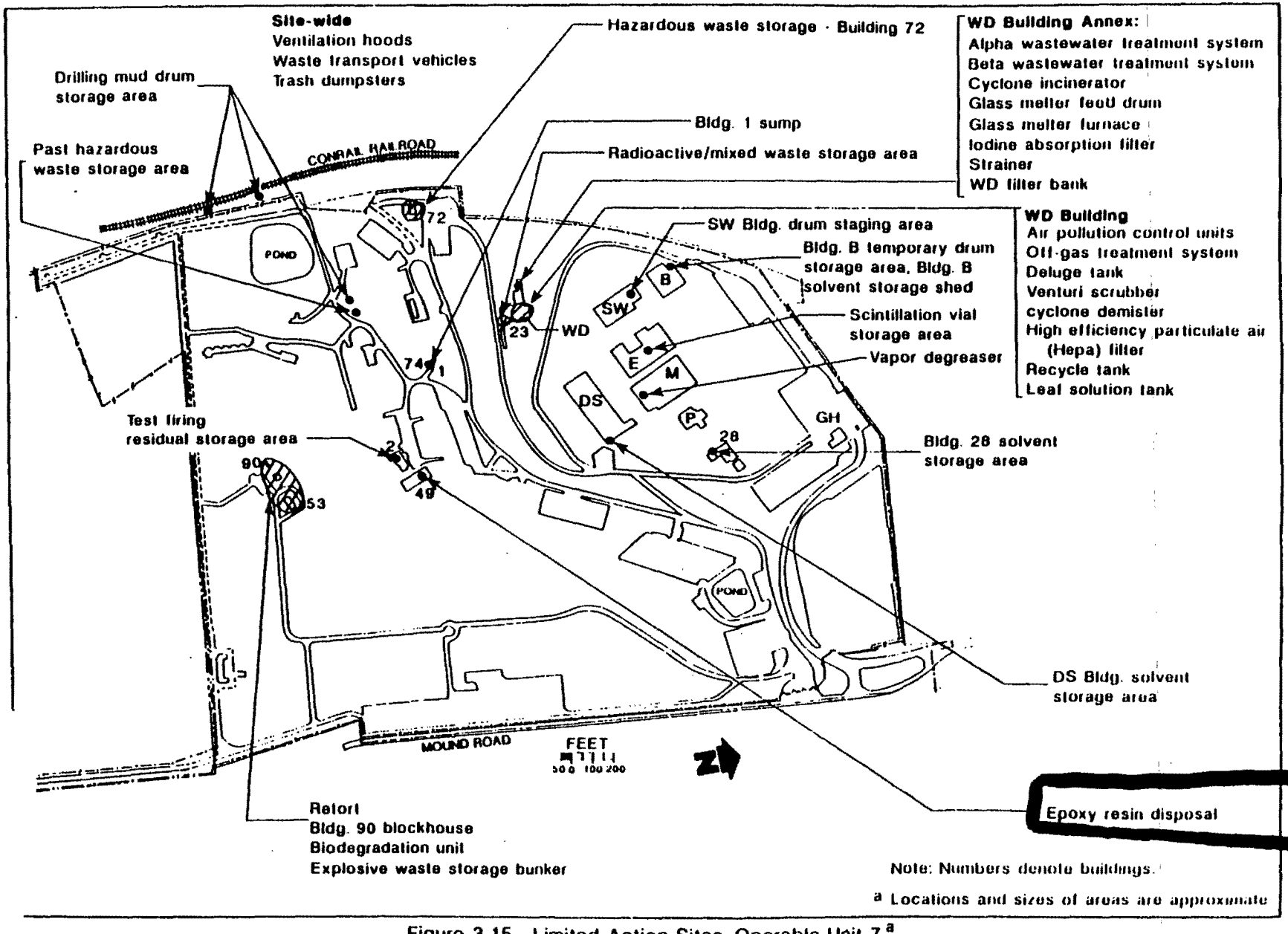


Figure 3.15. Limited Action Sites, Operable Unit 7.[a]

Table III.5. Limited Action Sites, Operable Unit 7

Release Site	Suspected Contaminants
Scintillation vial storage area	No known contamination
Building 28 solvent storage area	No known contamination
DS Building solvent storage shed	No known contamination
Building B solvent storage shed	No known contamination
Hazardous waste storage building	No known contamination
Radioactive/mixed waste storage area	No known contamination
Drilling mud storage area	No known contamination
Building B temporary drum storage area	No known contamination
Test firing residual storage area	No known contamination
Strainer	No known contamination
Iodine absorption filter	No known contamination
Ventilation hoods	No known contamination
Retort	No known contamination
Building 90 blockhouse	No known contamination
Biodegradation unit	No known contamination
Explosive waste storage bunker	No known contamination
Building 1 sump	No known contamination
Waste transport vehicles	No known contamination
Glass melter feed drum	No known contamination
Trash dumpsters	No known contamination
Vapor degreaser	No known contamination
SW Building drum staging area	No known contamination
Glass melter furnace	No known contamination
Off-gas treatment system (7 components)	No known contamination
Epoxy resin disposal	No known contamination
Alpha wastewater treatment	No known contamination
Beta wastewater treatment	No known contamination
Cyclone incinerator	No known contamination
Past hazardous waste storage area (old Building 72)	No known contamination

Because no contamination is associated at any of the limited action sites, no conceptual transport model is presented, and no impacts to the public or environment are anticipated.

3.8. INACTIVE UNDERGROUND STORAGE TANKS, OPERABLE UNIT 8

This operable unit presently addresses six inactive underground storage tanks located by the W building (Figure 3.[illegible]). Table III.6 lists the tanks and their contents. Additional information is given in Appendix A. However, Mound Plant has an ongoing program to remove underground storage tanks, primarily in compliance with regulations under RCRA Subtitle 1, administered by the Ohio Fire Marshall (EG&G 1989b).

The scope of the ER Program excludes those removals under state regulations, but does include the investigation and remediation of tanks subject to RCRA and CERCLA, including RCRA closures. The ER Program has an ongoing task to reevaluate the regulatory status of each of the underground tanks at Mound Plant (DOE 1991g). The Inactive Underground Storage Tank Program Plan - Mound UST Regulatory Status Review [DRAFT] (DOE 1991g) documented a total of 71 tanks in 24 separate buildings; 54 of which were documented in the Mound UST Management Plan (NUS 1989); documented in the Preliminary Review/Visual Inspection for the RCRA Facilities Assessment (RFA 1988); and one previously undocumented task. After that evaluation is reviewed and concurred upon by the EPA and the OEPA, those tanks which are clearly subject to regulation by the Ohio Fire Marshall will continue to be managed and removed pursuant to those regulations, while tanks that are subject to CERCLA will be moved into the ER Program.

Figure 3.17 presents the preliminary conceptual site model for this operable unit. Operable Unit 8 contains one primary source type (underground tanks) and one primary release mechanism (leaks) resulting in a simplified conceptual site model. The impact to the public or the environment has not been evaluated.

3.9. SITE-WIDE (OPERABLE UNIT 9)

The Site-wide investigations are designed to collect information about the plant on a comprehensive basis and will focus on media and contaminants leaving the Site and background measurements of groundwater, soil, surface water/sediment, and air. Four of the 109 potential release sites--the retention basin, the overflow pond, the plant drainage ditch, and the asphalt-lined pond--are initially investigated by Operable Unit 9 (Figure 3.18).

bottoms are in-ground structures constructed of 12-inch-thick reinforced concrete. The entire plant is approximately 44 ft by 17 ft. Treated effluent was discharged to the sanitary sewer system to the Great Miami River. The dried sludges were disposed of, spread across the plant, burned, or disposed of offsite. No releases have been documented from the in-ground structures and the integrity of the concrete walls and bottoms appeared to be good (RFA 1988). No radioactive soil contamination was detected during the Mound Site Survey Project (DOE 1991c).

7. LIMITED ACTION SITES, OPERABLE UNIT 7

Limited Action Sites, Operable Unit 7 includes sites that were designated as requiring no further action by the RCRA Facilities Assessment (RFA 1988) and are believed to have no contamination associated with them. These sites were visually inspected and approved as requiring no further action by a joint DOE, U.S. Environmental Protection Agency (EPA) and Ohio EPA committee on August 16th and 17th, 1990.

Operable Unit 7 includes 35 sites. Background information on these sites and a summary of activities that occurred at these sites follows. The location of each site is show on Figure A.7.

7[illegible] PAST HAZARDOUS WASTE STORAGE AREA

The past hazardous waste storage area (old Building 72) is an inactive unit that was located northwest of Building 87 and hydraulically upgradient and east of Area C (Figure A.7). The area began operation in 1982 and the Ohio EPA approved closure in August 1985 (RFA 1988). The area was used for storage of combustible and flammable liquids and waste oils generated at the facility before offsite shipment. Wastes were stored in 55-gallon drums. The storage area had a total capacity of 38,500 gallons if the drums were stacked two high. Old Building 72 was a 60-ft by [illegible]-ft covered structure. Its concrete floor had four drum storage bays that were diked and sloped. The dike areas were used to segregate incompatible wastes. When the building was decommissioned as a RCRA closure, the soil under and around the building was excavated and samples were collected and analyzed for contamination by halogenated volatile organic chemicals (Blauvelt 1986). Contaminated soils were identified, excavated and shipped offsite for disposal in accordance with 40 CFR 262 and 263. Additional soil samples were collected from the newly exposed soil, but no contamination was found. During closure, the building was moved to its present position (Building [illegible]), and the concrete was broken up and disposed of. The closure plan is included in this work plan as Appendix B.

7.24. BUILDING 1 SUMP

The Building 1 sump is a partially covered, inactive pit located on the west side of Building 1 (Figure A.7). The sump was put into operation in the early 1960s. The sump's influent and effluent lines were blocked in 1985 when the sump was taken out of service (RFA 1988). Its dimensions are approximately 4 ft by 4 ft by 3 ft deep. It is concrete lined and covered with a metal lid. The sump's function was to collect wastewater from Building 1, filter it to remove contaminants, and discharge the effluent to the Building 1 leach pit. The sump was dredged every three to four years. The sludge and filters were destroyed onsite by thermal treatment. The wastewater discharged into the sump contained small amounts of dissolved explosives (ppm range, grams per year) and acetone (4 m^3/year). The sump discharged filtered wastewater by gravity to the leach pit.

7.25. WASTE TRANSPORT VEHICLES

Waste transport vehicles have been used since the 1950s. Waste transport vehicles used at the site include hand carts, fork lifts, a modified step van, box vans, cargo bed truck, stake bed truck, and a tank truck. The hand carts are used indoors to transport drummed wastes over short distances. The step van and box van transport explosive wastes in containers from various onsite locations to Area H. Step and box vans are completely enclosed to prevent exposure of pyrotechnic waste containers to sunlight or precipitation. Drummed hazardous wastes are transported by a stake bed truck and a cargo bed truck to the hazardous waste storage area (Section 7.12). Drums are restrained on the bed of the stake bed truck by removable sidewalls (RFA 1988). Plutonium acid wastewater slurry from the SM/PP facility, formerly conveyed to the WD Building by the waste disposal pipeline, is transported by tanker truck. The slurry contains detectable amounts of toxic metals.

7.26. TRASH DUMPSTERS

The trash dumpsters are rectangular metal containers located throughout the facility for the collection of general trash. Many of the dumpsters are approximately 7 ft long, 4 ft wide, and 4 ft high, with an approximate capacity of 2 to 5 yd^3. Only non-hazardous trash is disposed of in the trash dumpsters. Trash is transported offsite for disposal. The dumpsters are still in service. The dumpsters are metal and are covered with plastic or metal lids. Many of the dumpsters are located on asphalt or concrete pads. Runoff from these areas is discharged to the storm drains (RFA 1988).

7.27. VAPOR DEGREASER

The vapor degreaser is located in the plating shop in the M Building on the Main Hill (Figure A.7). Small machined metal parts are cleaned by solvent vapors produced in the chamber of the degreaser. The fully enclosed metal chamber is approximately 3 ft long, 2 ft wide, and 4 ft deep. Spent solvent and vapors are retained in the degreaser cleaning chamber. The unit has a 15-gallon solvent capacity. The wastes produced in this unit are spent solvents. A facility representative indicated that solvent used in the vapor degreaser is perchloroethylene (tetrachloroethene). The unit began operation in the late 1970s and is still in operation. Spent solvent is transferred to drums and transported to the hazardous waste storage area (section 7.12). No wastewater streams are discharged to the storm or sanitary sewer. The floor of the building is constructed of concrete, with curbing to isolate spills from the rest of the plating shop (RFA 1988).

7.28. SW BUILDING DRUM STAGING AREA

The SW Building drum staging area is located near the SW Building (Figure A.7). The area is surrounded by metal grid sidewalls and underlain by a concrete pad that is sloped down the hill. There is no curbing surrounding the unit. The exact start-up date is not known, but the unit is still in operation. The staging area was intended for storage of asbestos materials, but it is currently used for drum storage of various types of hazardous wastes. All wastes are contained inside closed drums on a concrete pad (RFA 1988).

7.29. EPOXY RESIN DISPOSAL

Epoxy resin is used in minute quantities in components manufactured in Building 49 (Figure A.7). Small quantities of old, leftover quantities of resin are disposed of in the general trash (RFA 1988).

8. INACTIVE UNDERGROUND STORAGE TANKS, OPERABLE UNIT 9

Operable Unit 9 now contains only those tanks that are associated with the WD Building. Many of the tanks are scheduled for removal or abandonment in place in fiscal year 1992-1994.

8.1. SD BUILDING (3 TANKS)

There are three tanks located at the SD Building, adjacent to the WD Building on the Main Hill (Figure A.8). These tanks are scheduled for removal/closure by Mound Plant in the 1993 fiscal year. The tanks were used for the storage of sanitary wastes but are now empty.

OPERABLE UNIT 9, SITE SCOPING REPORT:
VOLUME 3 - RADIOLOGICAL SITE SURVEY

MOUND PLANT
MIAMISBURG, OHIO

June 1993

DEPARTMENT OF ENERGY
ALBUQUERQUE FIELD OFFICE

ENVIRONMENTAL RESTORATION PROGRAM
EG&G MOUND APPLIED TECHNOLOGIES

FINAL

1494500 1495000

WESTON
MANAGERS DESIGNERS/CONSULTANTS

6501 Americas Parkway N.E.
SUITE 800
ALBUQUERQUE, NM 87110
PHONE: (505) 884-5050

ER PROGRAM

MOUND PLANT

MIAMISBURG, OHIO

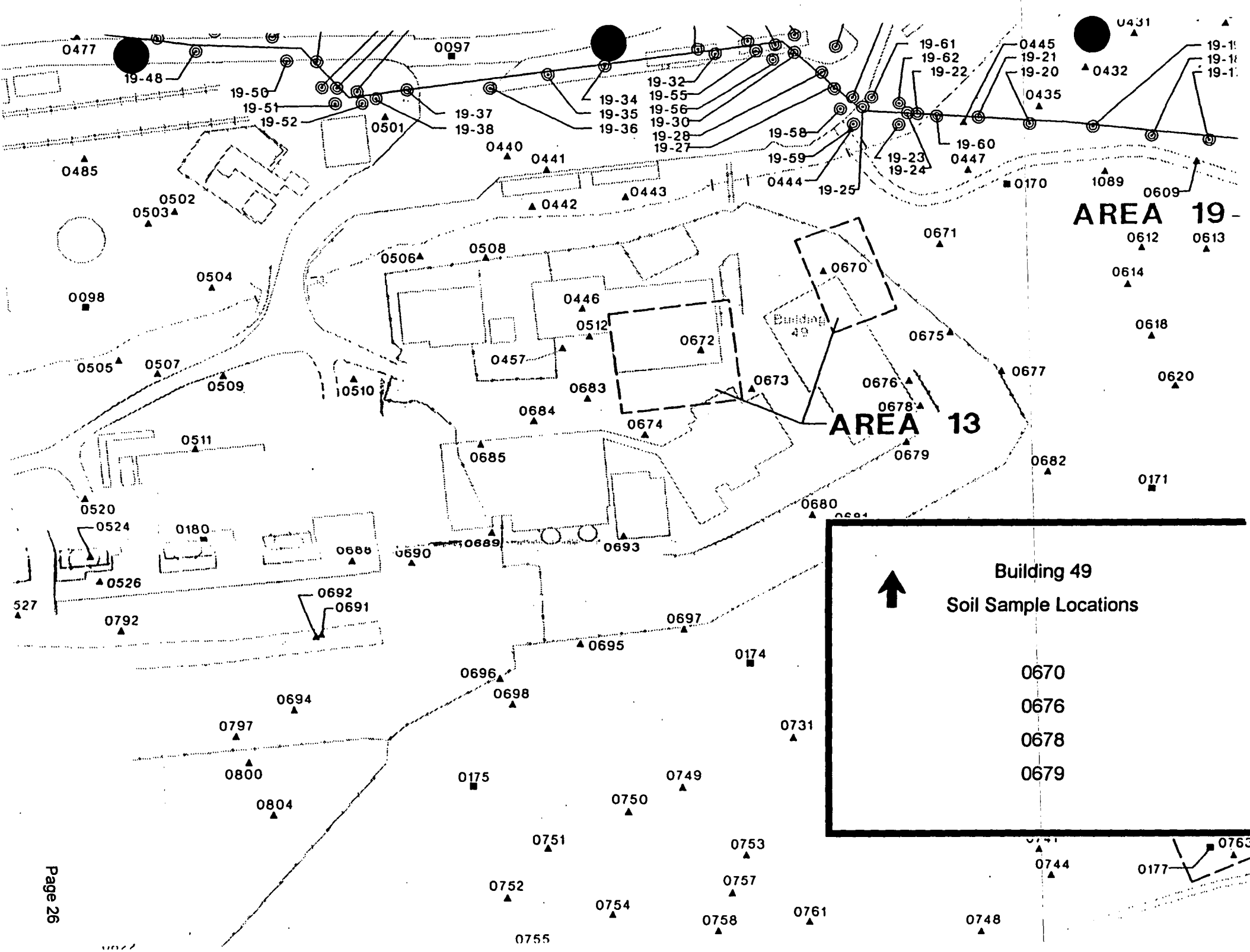
PLATE 1
(1 OF 2)

SITE SURVEY PROJECT SAMPLING LOCATIONS

PREPARED FOR

SITE SCOPING REPORT: VOLUME 3,
RADIOLOGICAL SITE SURVEY

ROAD


AREA 19
AREA 13
Building 49
Soil Sample Locations
0670
0676
0678
0679

Map Location[a]	Coordinates South	West	MRC ID No.	Mo-Yr	Depth (inch)	Pu-238 (pCi/g)	Thorium[b] (pCi/g)	Tritium (pCi/mL)	Co-60 (pCi/g)	Cs-137 (pCi/g)	Ra-226 (pCi/g)	Am-241 (pCi/g)
C0169	3575	2720	2473	08-83	18	0.07	b					
			2474	08-83	36	0.03	b					
			2475	08-83	54	0.21	b					
S0667	3575	2770	5830	07-84	0	0.38	b					
S0668	3575	2870	5831	07-84	0	0.02	b					
			2837	10-83	0	0.02	b					
C0170	2700	3000	8264	10-84	72	0.24	b					
			8264	10-84	162	0.03	b					
(The same MRC ID was given for both depths.)												
S0670	2705	3175	4029	10-83	0	0.34	b					
S0671	2725	3075	4118	10-83	0	5.74	b					
S0672	2725	3300	4027	10-83	0	0.43	b					
S0673	2775	3275	4043	10-83	0	0.08	b	0.15				
S0674	2775	3375	4028	10-83	0	0.54	b					
S0675	2800	3100	7196	09-84	0	0.28	b					
S0676	2825	3150	7193	09-84	0	0.09	b					
S0677	2850	3075	7197	09-84	0	0.11	b					
S0678	2850	3151	4030	10-83	0	0.21	b	0.98				
S0679	2875	3175	7194	09-83	0	0.05	b					
S0680	2900	3275	7195	09-84	0	0.34	b					
S0681	2925	3250	4031	10-83	0	0.28	b					

[b] Thorium results of ≤ 2pCi/g are listed as "b".